

**AMENDMENTS TO THE CLAIMS**

Claims 1-2, 4-10 and 12-18 are pending in the instant application. Claims 4, 5 and 12 have been amended. The Applicant requests reconsideration of the claims in view of the following amendments reflected in the listing of claims.

Listing of claims:

1. (Previously Presented) A system for interleaving data in a wireless device, comprising:

a memory buffer; and

means, coupled to said memory buffer, for sending downstream for processing, a portion of an input data stream comprising every  $C^{\text{th}}$  bit of said input data stream and for writing a remaining portion of bits of said input data stream to said memory buffer, wherein said writing to said memory buffer is performed based on a first interleaving pattern, and wherein C is an integer indicating a number of columns in said memory buffer.

2. (Previously Presented) The system of claim 1, wherein said portion of an input data stream comprising every  $C^{\text{th}}$  bit is sent downstream for processing without being stored in said memory buffer.

3. (Cancelled).

4. (Currently Amended) The system of claim 1, wherein said means comprises means for reading said [[said]] remaining portion of bits of said input data stream from said memory buffer, forming an output data stream.

5. (Currently Amended) A system for interleaving data in a wireless device, comprising:

a memory buffer;

means for sending downstream for processing, a portion of an input data stream comprising every  $C^{\text{th}}$  bit of said input data stream, wherein C is an integer indicating a number of columns in said memory buffer;

means for writing a remaining portion of bits of said input data stream to said memory buffer; and

means for reading said [[said]] remaining portion of said bits of said input data stream from said memory buffer, wherein said reading from said memory buffer is performed based on a first interleaving pattern.

6. (Previously Presented) A transmitter that transmits data via a wireless link, the transmitter comprising:

a medium access control layer;

a coding/multiplexing unit, comprising:

a memory buffer, and

means, coupled to said memory buffer, for sending downstream for processing, a portion of an input data stream comprising every  $C^{\text{th}}$  bit of said input data stream from said medium access control layer and for writing a remaining portion of bits of said input data stream to said memory buffer, wherein said writing to said memory buffer is performed based on first interleaving pattern, and wherein C is an integer indicating a number of columns in said memory buffer; and

a modulator coupled between the wireless link and said coding/multiplexing unit.

7. (Previously Presented) A system for interleaving data in a wireless device, comprising:

a memory buffer; and

a read/write unit, coupled to said memory buffer, wherein said read/write unit is configured to send downstream for processing, a portion of an input data stream comprising every  $C^{\text{th}}$  bit of said input data stream and to write a remaining portion of bits of said input data stream to said memory buffer, wherein said writing to said memory buffer is performed based on a first interleaving pattern, and wherein C is an integer indicating a number of columns in said memory buffer.

8. (Previously Presented) A system for interleaving data in a wireless device, comprising:

a memory buffer; and

means for sending downstream a first radio frame from a first portion of an input code block, for storing one or more additional radio frames from a second portion of said input code block in said memory buffer and discarding radio frames from a remaining portion of said input code block, for sending said one or more additional radio frames downstream from said memory buffer, and for causing said input code block to be recalculated.

9. (Previously Presented) A method for interleaving data in a wireless device, comprising:

sending downstream for processing a portion of an input data stream comprising every  $C^{\text{th}}$  bit of said input data stream; and

writing a remaining portion of bits of said input data stream to a memory buffer, wherein said writing to said memory buffer is performed based on a first interleaving pattern, and wherein C is an integer indicating a number of columns in said memory buffer.

10. (Previously Presented) The method of claim 9, wherein said portion of said input data stream comprising every  $C^{\text{th}}$  bit is sent downstream without being stored in said memory buffer.

11. (Cancelled).

12. (Currently Amended) The method of claim 9, comprising reading said remaining portion of said bits of said input data stream from said memory buffer to form an output data stream.

13. (Previously Presented) A method for interleaving data in a wireless device, comprising:

sending downstream for processing, a portion of an input data stream comprising every  $C^{\text{th}}$  bit of said input data stream, without storing said  $C^{\text{th}}$  bit of said input data stream in a memory buffer, wherein  $C$  is an integer indicating a number of columns in said memory buffer;

writing a remaining portion of bits of said input data stream to said memory buffer; and

reading said remaining portion of bits of said input data stream from said memory buffer, wherein said reading from said memory buffer is performed based on a first interleaving pattern.

14. (Previously Presented) A method for interleaving data in a wireless device, comprising:

- (a) sending downstream a first radio frame from a first portion of an input code block;
- (b) storing one or more additional radio frames from a second portion of said input code block in a memory buffer and discarding any radio frames in a remaining portion of said input code block;
- (c) reading said one or more additional radio frames from said memory buffer and sending said one or more additional radio frames downstream; and
- (d) recalculating said input code block and repeating operations (a) through (d) until said radio frames in said remaining portion of said input code block have been sent downstream.

15. (Previously Presented) A system for interleaving data in a wireless device, comprising:

- a memory buffer; and
- at least one processor that enables sending downstream a first radio frame from a first portion of an input code block, said at least one processor enables storing of one or more additional radio frames from a second portion of said input code block in said memory buffer and discarding radio frames from a remaining

portion of said input code block, said at least one processor enables sending of said one or more additional radio frames downstream from said memory buffer, and said at least one processor enables recalculation of said input code block.

16. (Previously Presented) The system according to claim 15, wherein said at least one processor enables frame segmentation of said first radio frame from said first portion of said input code block.

17. (Previously Presented) The system according to claim 15, wherein said at least one processor enables swapping of one or more columns of said stored one or more additional radio frames from said second portion of said input code block, within said memory buffer.

18. (Previously Presented) The system according to claim 17, wherein said swapping of said one or more columns is performed based on at least one interleaving pattern.